ELECTRICITY IN WAR

Some of the Important Inventions Revolutionizing Warfare.

FIELD TELEGRAPH AND TELEPHONE

Balloon and Kite Photogrametry and Electric Gun Firing.

INGENIOUS DEVICES

Written for The Evening Star.

IN SPEAKING OF the great advances in military science, a Governor's Island army officer recently said: "If electricity had been reduced to its present practical basis during Napoleon's time, or even during the more modern sieges of Richmond, Paris or Sebastopol, the history of the world would have been greatly changed."

The distinctive mark of favor has been bestowed by the government on those army and navy officers who have invented new and useful systems of practice. The result has been an active competition, and some really useful methods have been evolved. Electric balloon literature is especially voluminous. Practically the first successful balloon with which rapid and efficient signaling can be done is the large silk affair now being operated at Fort Logan, Col. It has been in operation over a year and the results are interesting and satisfactory. The outfit consists of the balloon, which has a capacity of 14,000 cubic feet, a balloon house and a gasometer with a cubical capacity of 1,000 feet.

The success of the balloon as tried above the fort has led to the remodeling of the lance wagon, which is now a balloon wagon carrying four gas tubes, cables, bag, &c. There are 180 steel gas tubes carried along on expeditions and in these gas is compressed from 1,400 to 2,020 pounds to the square inch. Only thirty minutes are required to inflate, pack and make ready for an ascension. This, in connection with the modern methods of signaling, is in marked contrast to the old way of doing it, when it required fifty hours for inflation, after

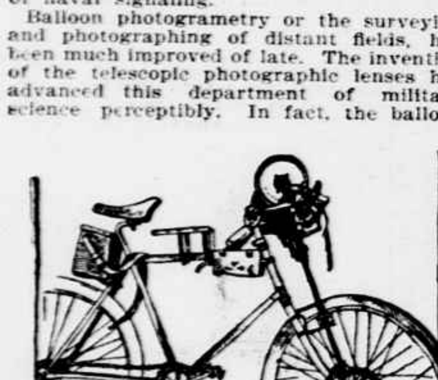
The Allen Telegraph and Telephone Kit—Drawn From Photograph.

which the only way of communication was by means of weighted letters dropped from the basket. Signals from captive balloons are and can be transmitted in a variety of ways.

Sending Messages.

If the balloon is to be used for reconnoitering purposes the result of the observations may be telegraphed or telephoned down the cable to the wagon, from whence it can be relayed or retelephoned to any further point of destination. The flag waving code or the heliographic system as was used at Fort Logan might be employed also. At night, if messages are to be transmitted to a distant point, incandescent lamps operated by storage batteries would be used. Following the suggestion of a Governor's Island officer lamps could be suspended from the cable of a captive balloon and flashed in and out according to some agreed-upon code. This is, however, a variation of the Ardois system of naval signaling.

Balloon photogrametry or the surveying and photographing of distant fields, has been much improved of late. The invention of the telescopic photographic lenses has advanced this department of military science perceptibly. In fact, the balloon



Bicycle Field Telegraph and Telephone Reel, Showing Side View.

question in warfare is one that is capable of almost indefinite development. The possibilities claimed for the balloon of the future are dazzling. For instance, army officers say that there is nothing improbable in the supposition of a general of the future using a balloon as a point of observation and transmitting his orders by wire to his army beneath his feet. An officer with everything thus under his eye could be in electric communication with every gun on the field, just as the commander of a man-of-war in his conning tower is able to personally operate every gun on his ship.

Flying Field Telegraph.

The modern United States accouterment, including the flying field telegraph and telephone, has superseded the heavy telegraph dial of other days. The size of the kit is so small that it can be carried with ease. It does not weigh over thirteen pounds. There is a diminutive Morse key and buzzer and one wire over which messages from both instruments can be sent simultaneously. The delicacy of the telephone is so exquisite that the faintest whisper can be transmitted a very great distance, a small battery carried on the back supplying the necessary current. The usefulness of this instrument is not limited to flying field lines. Its inventor is Capt. James Allen of the United States signal corps, and he has made some experiments with it that prove it to possess wonderful efficiency.

The bicycle field reel for paying out telegraph wire has simplified the equipment of the flying lines to a minimum. The form of the reel is such that one man can transport two miles of insulated double conductor wire with as much rapidity as a column of cavalry can move. A complete telegraph equipment consisting of several wagons and a lot of paraphernalia already exists in Fort Sheridan in the department of Missouri.

Undoubtedly, quick work can be done with it, but the far better method of communication, by telephone, is preferred by many engineers. By means of a bimetallic wire, having a steel core covered with copper, it is possible to telephone between two points through one strand of wire, even though the wire be non-insulated and lying on wet ground. The peculiar properties of this wire have been known for some time, and when it first appeared there was much talk of the possibility of being able to talk over it across the ocean.

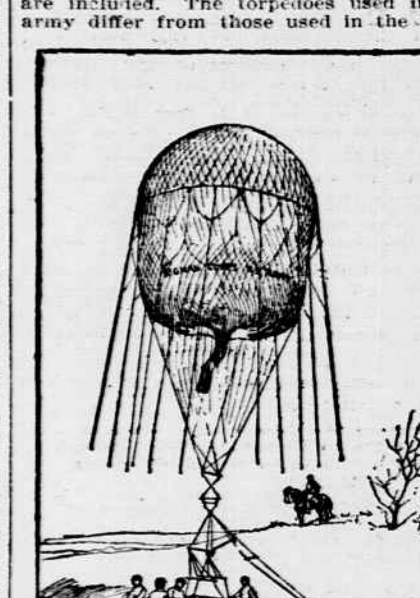
A Practical Test.

It will, however, perform very creditable feats on land, and in France at least Captain Charollois has devised a means of using it for army purposes. His system embraces a reel and transmitters, which can, with enough wire to cover a very appreciable distance, be carried by one man. The reel, etc., are carried like a haversack and take up no more room. The earth is used as a return circuit and the "ground" is generally made by attaching one end of the wire to a sword or bayonet stuck in the earth. In the experiments 10,000 feet of wire were used. It was wound and unwound. A regiment of cavalry passed over it. It was sunk in mud, passed through trees, bushes, over rocks and finally up the cable of a captive balloon, and yet signaling went on between each end of the line without interruption. Reels attached to bicycles and to cavalrymen were tried, and lines of communication were very quickly opened and operated at a distance of a mile.

The phonograph particularly has been suggested as a better means of dispatch sending than anything heretofore tried.

The microphone is now being experimented upon with a view to making it available for detecting the approach of a hostile force while the latter is yet some distance away and far beyond ordinary hearing. The microphone as now used will magnify the sound of the footsteps of a fly until it is almost as loud as the noise made by a horse's hoofs.

A very great change has taken place in the sapping and mining department of the army since electricity was introduced on a practical basis. Mines are now laid by the engineer corps and exploded with a far greater degree of nicety than when slow burning fuses were used. Rivers can now be guarded almost by one man, stationed where he can operate a circuit in which a number of submarine torpedoes are included. The torpedoes used in the army differ from those used in the navy.



The Gen. Myer Military Balloon and Crew.

The latter include a propelling apparatus which carries them through the water; those used in the army are generally anchored at the bottom of a stream. Given a number of torpedoes, judiciously placed, a single officer could make the passage across a river by an army a decidedly hazardous undertaking.

Saving of Time.

The value of electric firing as far as the guns themselves are concerned is admitted particularly on shipboard or for coast defense. There is no lost interval of time between the command of the gun captain and the actual exploding of the piece. The instant the gun is to be fired, the officer connects the circuit and the ball is on its way to its destination. If the object aimed at be a distant vessel, rising and falling with the waves, or a moving body of cavalry on land, the value of an instant discharge can be easily recognized.

Another electrical invention connected with gun firing is the range finder.

The journal of the military service institution which is published on Governor's island describes several of these instruments, both for army and navy use. They are all, however, built on one principle. That of Lieut. Fiske is very simple in construction. Although generally used on shipboard, it can be used just as well on land. Two telescopes mounted on standards are placed at a given number of feet apart. They are connected to each other by an electric circuit, which also includes a differentiating apparatus on which are recorded the various angles at which the telescope are placed. The mechanism of the apparatus is so perfect that the moment both telescopes are pointed at a distant object, the number of miles or feet from the vessel or fort at which the object is stationed is at once automatically pointed out on a scale. This fact being known, the proper elevation for the gun can be easily ascertained.

Electric kite signaling is being experimented with on Governor's Island. Attached to one of the kites recently sent up was a lamp on which a shutter or blind was placed. The shutter was operated from the ground, so that flashes long or short were obtained and a system of signals introduced. One of the objects sought for is a means of controlling and directing the flight of a kite. Another is the intelligent manipulation of a camera attached to the kite string.

Electrical apparatus will effect the latter object. The shutter of the camera attached to the string has heretofore been drawn by means of an extra cord running parallel to the kite string. It would not be possible to operate this in military practice. Kites are now flown at the extreme altitude of one mile. The mechanical stress in operating a shutter with a cord at this height would be very great, even supposing the effort to operate it did not pull the kite out of the desired plane. A magnetic contrivance operated through these wires attached to or laid inside the kite string is to be tried and it is expected will work satisfactorily.

Turned Black and Died.

From the Hartford Courant.

A peculiar case from a medical standpoint was that of Luther W. Thrasher, a young man who died suddenly last Monday morning. His death was due immediately to heart failure, with liver complication.

The peculiar part of the case and the feature which proved so interesting to the physicians consulted was that about three months ago the boy began to turn black. The nigrescence continued, and at the time of his death he was as dark as or darker than most negroes. His case was very puzzling, as the liver rarely affects the skin except to turn it a pale yellow in cases of jaundice, and his heart had never given him any trouble at all up to last Sunday, and was considered in good condition. About noon on that day he was taken with a fit of vomiting. Dr. Howard of Wethersfield was called and discovered that Thrasher's pulse could not be felt at all at his wrist, and at once recognized the heart trouble, but as the patient was young the doctor thought he might rally. A little brandy was administered. It did not seem to answer, however, and about midnight the young man died. Dr. Howard was seen at his office last night. He accounted for the change of color through the improper secretion of the bile, but how this could affect the pigment in that manner he could not explain. He admitted that it was only a theory, and that he had never known of another case of the kind.

Tired of It.

From the Cleveland Plain Dealer.

"Hurry, hurry, my dear, the house is on fire! Quick, this way to the fire escape!"

"To the fire escape! Oh, dear, what a nuisance!"

"A nuisance?"

"Yes. This will make the fourth time today that I've put on my bicycle skirt and laced up those horrid boots! There, there, don't you hurry me."

With the Chips.

From the New York Herald.

Tom—"I made an expensive call last night."

Dick—"How so?"

Tom—"Called on three kings—cost me $25."

Expected a Change.

From Tid-Bits.

"Johnny," called his mother, "stop using that bad language."

"Why?" replied the boy. "Shakespeare said what I just did."

"Well," replied the mother, growing infuriated, "you should stop going with him. He's no fit companion for you."

CHRISTMAS TREES

Some Novel Features This Year for Their Decoration.

DESIGNED TO PLEASE CHILDREN

Where Those Used in Washington Homes Are Obtained.

INSTEAD OF TREES

Written for The Evening Star.

"WASHINGTON IS about the southern limit of the Christmas tree custom," said an observant marketman to a Star reporter yesterday. "The Christmas tree is rarely seen nowadays in distinctly southern cities, for the reason that in the south the 'green Christmas' happens in eight cases out of ten. The full effectiveness of the Christmas tree can only be obtained when the Christmas tree season, which properly lasts from Christmas day until 'little Christmas day,' on January 8, is cold, and, preferably snowy. The whole idea of the Christmas tree is to have something cheerfully green in the house as a contrast to the cheerlessness and deadness of the outside, snow-mantled world. Snowy and decidedly cold Christmas seasons are far from common in Washington, yet, owing to the great numbers of people from northern states who live here, the Christmas tree is an exceedingly prevalent national capital institution. To the majority of northern folks residing here Christmas would be no Christmas at all without the tree.

"I should say that at least 30,000 Christmas trees are sold in Washington every year. They vary greatly in price. The cheapest can be bought for a quarter, and the most expensive costs as much as $30. On one of the Christmas days during the first administration of President Cleveland the late Mrs. Whitney decorated a Christmas tree for the children from an orphanage. It was about a twenty-foot spruce, and cost $50. It was decorated with several hundred dollars' worth of toys and other stuff. Rich people living in Washington sometimes pay $20 for Christmas trees varying from ten to twenty feet in height.

"The cheapest grades of Christmas trees are brought to the Washington markets by colored men, who gather them in the nearby counties of Maryland and Virginia. They get from half a dollar to $2 for them. They are the common cedars that abound in most woodlands. The expensive Christmas trees are shipped here from Maine and Wisconsin. These are generally high-class pines, covered with cones. The nurserymen in the New England states make a regular business of growing and training Christmas trees, and a Christmas tree nursery was recently started out at Brightwood. It will probably be a long time, however, before we sell any of the trained Brightwood Christmas trees, for it takes at least ten years to grow them from the seed.

Prepared for the Market.

"The pine and spruce Christmas trees are, of course, the best, and the greater number of cones on them the more they cost. The trees are ordinarily sawed off about a foot from the ground, but the custom of digging them up, roots and all, transplanting them in tubs filled with soil and selling them thus is growing. This is a good scheme, for the best of sawed-off Christmas trees loses its fresh appearance within a week, owing to the withering effect of the heat from the lanterns and candles ornamenting it. When the trees are sawed or dug up they present a rough, uneven appearance, and the Maine and Wisconsin dealers employ men to prune them into the proper Christmas tree shape with shears."

"There will be numerous novel features in the decoration of Christmas trees this year," said a leading dealer in toys and holiday gear. "There has always heretofore been a good deal of danger in the lighting of Christmas trees, and fatal accidents from the sudden igniting of the trees and their inflammable decorations have been numerous. Small vari-colored mica-sided lanterns will be used in large measure this year for the lighting of the trees. These little lanterns have in their bottoms a tiny tin cup, in which is placed a sponge saturated with kerosene oil. A miniature wick rises from the sponge, and this is lighted before the lantern is hung on the tree. The danger from Christmas tree fires is thus practically eliminated.

"The Eskimo Christmas tree is going to be seen in a good many Washington homes this year. The tree's boughs are loaded with artificial snow and hung with cunningly wrought glass icicles, and a lot of tiny Eskimo doll people are tied in life-like attitudes to the branches. This makes a sufficiently wintry tree, and the effect is quite beautiful.

Some Novelties in Trees.

"The fairy tree is a new one this year that will delight children living the blissful Hans Andersen period of their existence. All of the boughs of the tree are filled in with fine cobweb tinsel, through which peep diminutive will-o'-the-wisp lights. Set amid the tinsel little fairies with wands and wings are gleaming in silver drapery, the fairy queen enthroned in state at the top of the tree.

"A Christmas tree hung with several dozen or scores of tiny Japanese lanterns, under which walk as many dozen or scores of petite Japanese children with parasols, has a pretty effect. A tree being climbed all over by a whole village of Palmer Cox brownies is another novelty of this season.

"The 'Swiss Family Robinson' tree is not exactly an inexpensive affair, but the Washington children of the wealthy will dance around these quaint trees this year. It requires a special kind of a tree, but the ingenious head of a family can tinker up a good 'Swiss Family Robinson' tree in a few hours. He must cut out some of the tree's branches half way up the trunk. The tree must be set on the floor and not on a table. On the floor, at the base of the tree, a platform is made, and then a little staircase is built up from the platform to where the tree's branches begin to spread. A small house, cheaply painted, is erected around the trunk at the top of the staircase. Partitions of wood or pasteboard are put in this little house, the walls of which should be papered. The house is open at all sides except the rear, and is furnished with tiny chairs, upon which sit dolls representing the various members of the happy Robinson family. The tree is hung with lanterns. Lookouts are placed here and there, like the fighting tops of men-of-war, and a little bit of a rope and pulley is arranged for raising and lowering things from the ground. I think the 'Swiss Family Robinson' tree is calculated to please children many years past the tinsel and lollipop age.

In Place of Trees.

"I got an order yesterday for the construction of a peculiar and novel kind of a tree at the home of a Chicago gentleman with a large family of children, living up in the northwest section. It is to be an ingenious sort of substitute for a Christmas tree. To fill the order I'll first have to have built the skeleton of an Indian wigwam. This is to be five feet from the floor to the peak, and almost as much in diameter. It is to be covered with white muslin, and set up in the corner of a room covered with white canvas. The top of the wigwam of muslin is to be sprinkled with spangles until it shines like snow gleaming in the sunlight or the moonlight. The three poles protruding from the wigwam are to cross at the top, and icicles and tiny lanterns are to hang from them. Down one of the sides of the tent a little Indian will be seen tobogganing. All of the Christmas presents for the Chicago man's children are to be put inside the tent. There will be plenty of room within the tent for several children to play inside. People not so wealthy could get one of these wigwams up at comparatively small cost.

"Another odd substitute for a tree will be set up in a western Congressman's Washington home. It is to be an exact duplicate in miniature of his suburban home in the west. The estate will be shown on a platform about three feet high and six feet by six on the surface. The Queen Anne house, the barn, the stables, the smoke house and implement house are to be exactly represented, as are the clothes lines, the vegetable and flower gardens, the walks, shrubbery, trees, and little iron fence. A doll nurse will be shown wheeling a doll baby carriage on the front carriage walk; the coachman will be seen driving a span of horses hitched to a little carriage out of the barn; the doll maid will be exhibited hanging out the clothes. If this is not something that will surprise the Congressman's children, they must be very self-contained indeed.

Some Odd Ideas.

"A somewhat expensive but exceedingly beautiful tree that the head of a Washington electrical institution is to have for his children will be lighted by tiny incandescent electric lights of many colors. They are to be strung through the tree, and a simple twist of the screw will turn them on and off.

"A unique tree that one of the taxidermists of the National Museum is to fix up for his children will be tenanted by animals alone. This gentleman has put in his odd moments for nearly an entire year in dressing up little furry animals in miniature for the decoration of his Christmas tree for this season. I suppose he has as many as twenty different specimens of animals, and several of each variety. Little huntsmen are to be represented aiming toy guns from their vantage points on little knolls underneath the tree at the animals. The tree is to be elaborately silver spangled, to give the proper wintry effect.

"A German custom which is to be introduced in at least one Washington home that I know of this year is rather beautiful. This is a realistic representation of the stable in which Christ was born. The infant Christ is shown lying in the manger, over which the Virgin leans. Joseph reclines at a short distance. Kneeling before the manger are the wise men of the east, bearing in their hands small censors of frankincense, which is fragrantly burning, and from which real smoke arises. The presents for the children of the house in which this is to be pictured are to be put in the stable."

Poor Hawkins.

From the New York Herald.

Nothing is more agreeable to the man who likes to tell a story, and who knows that he can tell it well, than to have for a wife a lady who is great on absolute correctness of detail, and who is willing to see that this accuracy of detail marks your story telling.

Hawkins is thus blest in the partner of his choice. He and his wife were at a dinner the other evening, and Hawkins had a capital little story to tell, and this is the way he told it:

"It was last Wednesday," he began, when Mrs. Hawkins said, gently:

"You are mistaken, my dear, it was Tuesday."

"Oh, well, the day don't matter."

"It is just as well to be accurate," said Mrs. Hawkins, calmly.

"Well, it was on Wednesday, and Jones and I were lunching at Hoover's cafe, and——"

"My dear, you said that it was Mooney's cafe when you told the story to me."

"Oh, so it was Mooney's. I forgot. It was the day before that we lunched together at Hoover's."

"Why, Mr. Hawkins, how forgetful you are. I lunched with you the day before, and we went to the Albion restaurant."

"Oh, so we did. Well, it don't matter. Well, Jones and I had just taken our seats and given our orders when an old man and his wife came in and——"

"You're not sure that she was his wife, my dear."

"Oh, she must have been. He called her Maria, and she called him Aaron, and——"

"That is no proof that they were husband and wife. She might have been his sister, you know."

"Well, I know that they were husband and wife, and he——"

"You can't be sure of it."

"It don't make the slightest difference whether they were man and wife or not. Anyhow, they were the queerest-looking pair I ever saw. She was fully seventy, and——"

"Why, Mr. Hawkins, you told me that she was about sixty."

"Well, maybe she wasn't more than sixty. It don't matter. She had on the wildest, giddiest hat and a——"

"You told me that she wore a bonnet, Mr. Hawkins."

"Well, I don't know but it was a bonnet. It was the wildest-looking bit of headgear I ever saw, and the blue dress she wore——"

"Blue dress? Why you told me that it was a red dress."

"No, I didn't."

"I'm quite sure that you did, Mr. Hawkins."

This goes on until Hawkins becomes so muddled that the point of the story, when it is finally reached, falls perfectly flat, and the scene that occurs when Mr. and Mrs. Hawkins are alone together would not look nor sound well if printed.

Knew Whereof She Spake.

From the New York Herald.

She was tall and graceful.

Her carriage, which was imperious, had a coat of arms on it. It stood at the door. She entered the china store and looked inquiringly about her.

"I desire some eggshell ware," she said.

"Very sorry, madam," rejoined the accommodating salesman, "but we are just out. Might I venture to suggest Limoges, Sevres or Dresden?"

"Impossible," she said, with a frown which corrugated her delicately chiseled forehead, "I desire to give an incubator tea."

And she swept out of the store with a noticeable frou frou of her brocaded skirts.

A SORROWFUL REMINDER;

Or,

The Barn Yard Fowl as a Sacrifice to Prevailing Fashion.

A CONCAVE EARTH

Theory of a Chicago Scientist as Unfolded by Pauline Pry.

AUTHOR OF THE KORESHAN SYSTEM

What Dr. Teed Claims to Have Learned of the Earth's Form.

CO-OPERATIVE PLAN

Written for The Evening Star.

IF ANYBODY really wants to know the truth about a cannon ball falling to the center of the earth I am not without information to offer that at least has the merit of being entirely new.

If a cannon ball fell to the center of the earth it would hit the sun, for the sun is the center of the earth, which is not a solid sphere, as Copernicus and others have led you to imagine. The earth is a hollow ball, in the inside of which we live, and its circumference embraces the universe, sun, moon, stars.

That may stagger you a bit on first hearing it, but, believe me, as a surprise it isn't a circumstance to what I have in store for you.

I spent the afternoon Thursday with a man—Dr. Cyrus R. Teed of Chicago—who claims to have disproved the Copernican theory and to have upset every science based thereon, who claims, furthermore, to be the power and personality from which the millennium is to come at no far-distant day.

Dr. Teed is in the city, a guest of Prof. McGee, the ethnologist. I met him at the home of a woman whose purse is deep, whose charity is broad and whose intellectual standard is high. An introduction from her would recommend any one to your most respectful consideration, and equally potent in recommending Dr. Teed to even a Philistine is the fact that his theories have made money.

Co-Operative Colonies.

He has established co-operative colonies in a dozen towns throughout the country, with a central colony at Chicago, and he is now on his way to Florida, where he has purchased a large tract of land on Estero bay and the Gulf of Mexico, for the purpose of pursuing his investigations of the form of the earth.

In the personality of his knowledge and power to effect the millennium, Dr. Teed is known as Koresh, and his doctrine is called the Koreshan system of truth. The vastness of this truth appals the most earnest or the most curious soul that seeks to possess it, and it was with humility, not unmixed with fear, that I asked Dr. Teed to tell me how his discoveries have been made.

"I was born in a Baptist family, and destined by my parents from early childhood to be a Baptist minister. When I was ten years old I became convinced that I was not called to preach, and I began studying medicine, which seemed to me to be a profession offering, next to the ministry, a means of serving humanity. At nineteen I began the practice of medicine, and continued in it until I was thirty, when I became skeptical not only of the Bible, but of science. One seemed to me to have as little authority to uphold its claims as the others, and I abandoned my profession to study nature, with a view to finding if I could find a positive, indisputable truth on which to base knowledge in place of the theories generally accepted by men. After years of hardship and hard work I discovered this in the truth concerning the earth's form and its relation to the universe.

What is Generally Believed.

"You know that according to the notion of Copernicus, the world has been taught for centuries that the earth is convex; that it is a large globe filled with molten matter, surrounded by a crust inclosing the great mass of fire, and that we live on the outside; that the earth, compared with the universe, is but a mere speck in the vast ocean of infinite space; that the sun is the center of a system of planets among which the earth revolves at a given rate of speed. The universe is held to be limitless, without center and without circumference, occupying infinite space—one vast ocean filled with numberless worlds.

"From this notion various deductions have been made, but at the end of centuries how much exact knowledge rewards all the efforts of mankind? What do we know of all the worlds said to exist about us? What do we know to meet all the necessities and exigencies we experience in our own world, and of the cause, purpose and design of the whole, does any man declare that he knows positively anything at all?

"Now, the Koreshan system maintains and demonstrates that the universe is a unit; it is an alchemico and organic structure, limited to the dimensions of 8,000 miles diameter. According to the great law of analogy, we hold that its form is cellular; that all life is generated in a cellovine vivum ex ovo! The earth's shell, composed of metal and minerals, is about 100 miles in thickness, constituting a gigantic voltaic pile, the basis of the great galvano-magnetic battery furnishing the negative elements of the cell for the generation and supply of the sun's fuel. The concave surface of the earth alone is habitable. Superimposed upon the strata of the shell and emplaced in their static planes are the three atmospheres. At the center we find the positive pole of the great battery—the central sun around and with which the heavens revolve in twenty-four hours. All of the energies of the physical universe are engendered through the relation of the positive center to the negative circumference; a great complex battery of physical unity is thus maintained and perpetuated.

Not the Real Sun.

"The sun we see is not the sun proper, but a projection upon our atmosphere. The planets are spheres of energy reflected from metallic discs in the earth's circumference, and the stars are focal points of light. The moon is a sphere of energy derived from the planets and from the magneto-electric energies generated in the earth's concave crust. The whole is eternal; it is God's footstool, and is essential to His existence; it is the ultimate and outermost limit of expression of the Divine mind. The earth is the only physical world; it has no orbital motion; it is fixed and relatively stationary, while the sun, moon, planets and stars move in orbits in the heavens above us; they are inseparably connected with the universe."

"How do you know all this?" I hastened to ask the doctor the instant I got the chance.

"By various means. Among others, by the use of a mechanical device, which I call the rectilineator, I have taken measurements of the earth, which demonstrate its surface to be concave instead of convex. For the elemental fact of my knowledge, therefore, I have experience of my own upon which to depend, and from this starting point the further facts and deductions I have developed reconcile the two heretofore conflicting sources of knowledge, and revelation and science, the Bible and nature, declare the one same truth.

As Stated in the Bible.

"Proctor ridiculed Moses' conception of astronomy, because he wrote of a solid shell inclosing the universe. In the Bible the word firmament is repeatedly used, and the Hebrew of this word, vakayia, means hammered-out plates or strata of metal. Applied to the universal environ, it means metallic shells or strata surrounding and in[illegible]g the world, which is the view of the Koreshan system, while the conclusions of modern astronomy, that we are living on the exterior surface of the earth, with an infinity of an inclosed space extending in every direction, are diametrically opposed to the scriptural representation of cosmography."

A great many more instances of the correspondences of the Bible and Koreshan science Dr. Teed recited to me, but I am free to admit that my little head is capable of receiving but an atom of all he seems to know. To be suddenly whisked off the outside of the earth and set down inside of it, with all creation to keep me company—it made me very dizzy, and it was with difficulty I retained sufficient hold on my reason and sufficient knowledge of where I once stood or thought I stood in the universe to ask the new prophet "If all creation is inside the shell of the earth, what is outside?"

"Nothing," was the prompt reply, pronounced with so much assurance and satisfaction that my brain reeled again and I could only ask feebly once more, "How do you know it?"

Within the Earth's Shell.

"One of the two expugnable factors of science is form, and a necessary factor of form is limitation. The universe, by virtue of these essential properties, is necessarily limited, and its dimensions cannot be measured—they cannot extend beyond the boundary of its existence. The universe occupies space; that is, it possesses space. Within the shell of the earth is all the space there is."

This hardly seemed to me enough space for my individual uses, let alone all creation, and I made a further attempt to get a little something outside by asking:

"What holds up the earth?"

"It is not held up," said the doctor.

Really, you know, such an idea as that, to come out of Chicago, where everybody and everything is held up, held up in broad daylight, too. I couldn't understand it. However, Dr. Teed went on to explain.

"The earth is not 'held up;' it is down; everything is 'under the sun.' The meaning of the word substance is 'to stand under,' and everything, in its static balance, that is in its position in the established order determined by its gravity, is beneath the center; hence everything depends from the central point, which is the point of limitation of space interiorily, the exterior limit being the circumference. The central point is not a thing. It is the absolute. It is the 'nothing that was made, without the word of God. Job has declared this truth, saying, 'He stretcheth the north over the empty place and hangeth the earth upon nothing.'"

To Revolutionize Society.

I could hardly understand how, the truth of Koreshan science being established, there would necessarily be a revolution in text books and possibly an upheaval of the Geographical Society, attended by something like an earthquake in the Cosmos Club. But why everything else should not ignore the matter and continue doing business at the old stand, in spite of the concavity of the earth, I could not see, and I told Dr. Teed so.

"Suppose you prove to the world all you believe, what difference would it make to the average person?"

This was the answer: "Exact knowledge of the form and function of the physical universe will revolutionize society on a line with the principles we embody in our Koreshan communities. These communities work on a co-operative plan. The amount of human labor necessary to produce a bushel of wheat is our unit of value, and the wealth of the community is apportioned on this labor basis, not on a basis of gold or silver, having an arbitrary value fixed without reference to the man-power involved in its production.

"Our social system is divided into two distinct general orders, the prime and superior order being celibate, the inferior being marital. The object of the celibate order is the conservation of the sex energies for the higher spiritual, mental and physical regeneration. Koreshans maintain that the dissipation of the sex forces is the cause of mortality, and that immortality will come only through the purification of the mind and body, in obedience to the principles of celibacy and chastity embodied in Christ and reincarnated in Koresh."

In appearance Dr. Teed, or Koresh, is not unlike President-elect McKinley, yet more than anything else he suggests a body revolving upon its own axis and pursuing an orbit entirely its own. His concave earth is a world apart from my convex sphere and yours, and concerning his truth and the form it takes I have no opinion to offer. I only know that Dr. Teed comes from Chicago, and—well, will you tell me, can any good come out of Chicago?

PAULINE PRY.

He Had a Full House.

From the Philadelphia Inquirer.

Parrot stories are always good so long as they are true. And, of course, none but true parrot stories ever find their way into print. A well-known resident of Tioga is telling one which he declares he is willing to stake a hard-earned reputation for veracity upon.

This particular parrot is the property of a Tioga household, the head of which is inordinately fond of a quiet little game of poker. For years it has been his custom to get three or four of his friends together at least twice a week in the snug library of his house and while away four or five hours of an evening by means of five-cent ante, with a quarter limit. The parrot's cage hangs in the same library, except on state occasions, when it is taken into the dining room.

The man's wife is as devoted to her church as he is to his favorite game. She never misses a meeting, and as often as the good man will come, has her pastor to her home for Sunday dinner.

He was there two or three weeks ago. So were a number of other friends of the family. The minister of the household presided over the dinner, and the conversation was as lively and vivacious as the sanctity of the day would admit.

The clergyman is one of the liberal-minded class of men who are bringing religion in closer touch with the masses. His utterances when out of the pulpit are frequently punctuated with every-day expressions, the use of which by a preacher would have been thought strange a decade ago.

It was he who was talking at the table, and all the others were interested listeners. The subject was the morning service at his church, the attendance upon which had been very large.

"Yes," he said, "I couldn't help remarking to myself as I entered the pulpit: 'Well, this is one time I've got a full house.'"

"That is pretty d—— good," quickly came in all too distinct tones from the parrot's cage. "Take the money, Dick."

The presence of the preacher, the parrot's profanity, and the fact that "Dick" is her husband's name, sent the mistress of the house into a fit of hysterics, which nearly broke up the dinner.

The Flagpole Industry.

From the New York Times.

New York does a flourishing business in flagpoles. They are sent from here all over the country, and outside to Japan and Cuba, though none have gone to Cuba recently. "There are ten times more poles than there were in New York city four years ago," says C. H. Lilly, who has known all there was to know about the flagpole business for twenty-eight years. "There is not a business building put up nowadays," he says, "that does not have a flagpole. Four years ago you could not have counted a dozen flags above the Harlem to Fordham, and now there are at least 250. In one piece the poles run up all the way to 98 and 100 feet. The pole on the produce exchange is 100 feet, and the old Mutual Life Insurance building had a 100-foot pole. These are exceptional. The majority of the tall poles do not exceed ninety-eight feet. The village pole is usually or always the liberty or topmast pole, in two pieces." The shorter poles are made of spruce or ash, but the tallest ones of the tougher white or Norway pine. The gilt tops to flagpoles are more or less ornamental. A salamander figures on the poles topping some of the big fireproof buildings. Occasionally a flagpole is artistically built into the corner of a building.

Schools for Cash Girls.

From the Chicago Tribune.

Following the lead of Chicago, a New York dry goods house is about to start a little school in its own premises where the cash girls can obtain instruction one or two hours every day, as also those older ones whose early schooling has been neglected. In one of the large dry goods stores of Chicago a day and night school is maintained, with competent teachers and all the modern accessories of a first-class school room, where the employes of the store are given free education. In Milwaukee one of the greatest breweries conducts a school, library and reading room for its employes, who are over 10,000 in number. All three were established despite the protests of those who said the advantages would never be utilized, and all triumphed from the outset. The school compares favorably with the best public schools in the city, the reading room is well patronized and the library is employed to its full capacity.

UNIVERSITY NOTES

Catholic University.

The students of the various departments have organized a literary and social club, to be known as the University Club. The officers elected for the first time are: President, Rev. Father Duffy; vice president, J. J. Mott; secretary, Francis Gilfoil; treasurer, James Igo; advisory board, Fathers Tettermer and O'Neil of the divinity school, Messrs. McTighe and Murray from the philosophical school, and Messrs. Cashman and Scott from the law school. Meetings will be held twice each month.

Dr. Maurice Francis Egan, head of the department of English literature, lectured Thursday afternoon on "St. Francis of Assisi as a Poet."

The examinations in elementary law were held Thursday and Friday.

Arrangements for the installation of Dr. Conaty, the new rector, which will occur early in January, are being made.

Howard University.

A special song service will be held in Miner Hall tomorrow evening, and all the musical numbers on the program, which follows, will be compositions by Handel: Overture, "Messiah," Miss Kate Donohue; song, "Joy to the World," full chorus; Scripture recitals, young ladies of Miner Hall; recitative, "Comfort Ye," Professor W. J. Stephens; invocation; solos (a), "He Shall Feed His Flock," Miss M. B. Quander; (b), "Come Unto Him," Miss Lucy A. Turner; pastoral symphony, Messiah, Miss Mary M. Wright; address, "Life of Handel," Professor W. J. Stephens; solo, "He Was Despised," Miss L. Hunter; solo, "But Thou Didst Not Leave," G. H. Harris; Christmas tune, "Awake, My Soul," full chorus; "Christmas Carol," quartet, Misses Wright and Hunter, Messrs. Harris and Nutter.

Father Stafford delivered a lecture to all classes Wednesday afternoon on "Hamlet."

The Brotherhood of St. Andrew met Thursday evening in the chapel of King Hall.

The Livingstone Missionary Society met Friday evening, and the following program was rendered: Address, M. Hall; song by quartet, Messrs. Payne, Tartt, Barham and Nest; paper, "Mission Work," J. W. Jacobs. N. E. Stewart is president of the society, and J. H. Hughes is the secretary.

The Theological Literary and Debating Society will debate the question, "Resolved, That a preacher should always accept a call to a larger field." Affirmative, N. Stewart; negative, J. West.

Examinations in all departments are in progress and will conclude Wednesday, when the Christmas vacation begins.

The 'varsity eleven will play the Colored High School eleven Christmas day on the college campus.

Columbian University.

Last evening the Enosinian Society discussed the question: "Resolved, That the United States should immediately compel Turkey to cease her atrocities in Armenia." The speakers were Messrs. Hays, Hobson, Broadus and Q. Harlan on the affirmative and Messrs. Jones, Hoover, Rogers and Beatty on the negative. The Class News, edited by Mr. Hoover, was read at the conclusion of the debate.

The Law School Debating Society tonight will discuss "Resolved, That women should have the right of suffrage." For the affirmative the speakers will be F. M. Church, A. B. Seibold and F. P. Warfield; negative, J. H. De Witt, J. A. Finch and D. P. Moore.

Wednesday evening Dr. Whitman delivered a lecture on "An Evening With Browning," at the request of the college students.

The Pi Beta Phi Society met Wednesday afternoon and transacted routine business.

Maj. J. W. Powell, chief of the bureau of ethnology, lectured to the students of the collegiate department on "The Science of Anthropology Defined and Characterized." This is the first lecture in a special course of six which Maj. Powell will deliver on Mondays and Wednesdays. The second lecture, "The Science of Demonomy Defined and Characterized," will be given Monday afternoon.

A novelty in undergraduate work will be inaugurated after the holidays in the Corcoran Scientific School. A course of lectures on "Chemical Biography" is to be delivered by students of this department to their fellow students, each delivering one lecture. The course will be confined to the contributions of American chemists to the science.

Prof. George P. Merrill of the Corcoran Scientific School has just published in the Journal of Geology an interesting paper for students on the "Principles of Rock Weathering."

Prof. Wiley of the graduate school read a paper entitled "The Mechanical Analysis of Phosphatic Slags" Thursday afternoon, at the meeting of the Chemical Society, showing the use of phosphatic slags as a fertilizer.

Tuesday afternoon, before the Society for Philosophical Inquiry, Mr. Howard delivered a lecture on the "Philosophy of Religion." At the next meeting of the society, January 5, Mr. Harris will lecture on "Philosophy of Education in Its Subjective Aspects."

Georgetown University.

The banquet tendered Monday evening to the class of '98 eleven, winners of the championship in the interclass foot ball series, was an enjoyable affair. Toastmaster Thomas M. Pierce opened the program with a neat speech and the following toasts, interspersed with songs and sketches, were responded to: "Class of '97," Joseph Collins; "Class of '98," William O'Leary; song, "Hugh McCune," Chas. A. Greene; "Class of '99," Robert Walsh; "Class of 1900," William Fleming; "The Yard Association and Athletic Outlook," Richard Watkins; character sketch, Chas. McLoughlin; "Class Spirit of '98," W. W. Dixon; "Society as I Found It," Francis McAnerney; "The Convent and Ladies in General," Clarke Waggaman; "Class Song of '98," Bob Ridley; "Day Scholars," Ed. Brady; "A Few Points on Study," James Walsh; "The Future of '98," Harry R. Gower; "The Pleasures of Life," Keane; "Christmas and Home," McAleer. Fathers Ennis, Deck, Richly, Becker and Kavanaugh represented the faculty.

The Philosophers held their annual banquet Monday evening. Mr. Charles Shea, president of the class, presided. There were no toasts. The faculty was represented by Fathers Shandell, Brett and Deck and Mr. Doulin, S.J.

The question for debate at Thursday evening's meeting of the Philademic Society was, "Resolved, That an income tax is the most equitable mode of taxation." McAleer and McMahon spoke on the affirmative and Curley and Gower on the negative.

The question for the Merrick Medal Debate has been announced, but is subject to change at the discretion of the president of the society or the rector of the university: "Resolved, That the United States should grant belligerent rights to Cuba." Sides have not yet been assigned to the debaters.

J. O'Leary, captain of the '98 foot ball eleven, has been compelled to give up his studies on account of his eyesight and has gone home.

Examinations of the fall term are in progress and the school will close on the 22d instant until January 3.

The Morris Literary and Debating Society discussed at their last meeting "Resolved, That romanticism is preferable to realism in literature;" affirmative, Harry Riley; negative, Martin Monohan. J. F. P. Des Garennes was appointed chairman of the executive committee, vice James Ryan, resigned. An essay on "Lowell's Criticism of Dante" was read by Michael J. Earls. At the next meeting of the society the question for debate is "Resolved, That suffrage should be extended to citizens of the District of Columbia." The speakers will be Ed. Tobin on the affirmative and Frank Smith on the negative.

An Excess of Faith.

From Harper's Bazar.

Presiding Elder (examining applicant for church membership)—"Does yo' beleebe dat Jonah swallered de whale?"

Applicant (devoutly)—"I suttingly does, deacon."

Presiding Elder—"Does yo' beleebe dat Goliah killed David?"

Applicant—"Oh, I's positive shuah ob it, deacon."

Presiding Elder—"Does yo' beleebe dat de lions et Daniel and dat an ass slew Sampson wif de jaw bone ob a Philistine?"

Applicant—"Yais, deacon—dat's gospil trufe."

Presiding Elder—"Oof! Yo' mus' beleebe jais opposite to ev'yt'ing de Bible sais, den—yo's wuss dan a hertic, an' yo' kain't jine dis yar chu'ch nohow."

The Hand of Fortune.

From the New York Commercial Advertiser.

Freddy—"What is the hand of fortune, papa?"

Papa—"Four aces, my son—that is, don't bother me. Go to your mother."